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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,315	04/25/2001	Alain Blanc	FR920000019US1	7937
7590 04/05/2005 Gerald R. Woods IBM Corporation T81/503 P.O.Box 12195 Research Triangle Park, NC 27709			EXAMINER PHILPOTT, JUSTIN M	
			ART UNIT 2665	PAPER NUMBER

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/843,315

Applicant(s)

BLANC ET AL.

Examiner

Justin M Philpott

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5-7,9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show a “buffer 160” or an “output buffer 400” as described in the specification. While Figure 1 includes a reference identifier of “160” it does not appear to reference any item, and specifically, does not reference a buffer as described in the specification (e.g., at paragraph 15). Additionally, Figure 4 does not include the reference identifier “400” which is described in the specification (e.g., at paragraph 22).

Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

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informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "522" has been used to designate two different steps in Figure 5. The top/prior step should be changed from "522" to "520", in accordance with the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 9 and 10 are objected to because of the following informalities: it appears that "greater then" (claim 9, line 6) should be changed to "greater than". Claim 10 is objected to because it is dependent upon the objected claim 9. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,140,584 to Suzuki.

Regarding claim 1, Suzuki teaches a method for controlling congestion at an output from a node in a data communications network wherein data is transmitted in packets, each packet having a discardability characteristic, the method comprising the steps of: establishing a set of available, alternative discard strategies (e.g., discard priority properties according to Pdspi, see col. 4, lines 42-62, and memory planes, see col. 5, lines 1-60) for packets having different discardability characteristics (e.g., different discard priorities and different output ratios); maintaining a profile of packets recently received at the output (e.g., wherein number-of-packets counter 5 receiving Pout signal from output control unit 3 sends counts Qui to comparator 6, see col. 4, lines 33-41, and memory planes comprising the output ratios are stored in ROM 30, see col. 5, lines 1-60), the profile reflecting the discardability characteristics of the packets (e.g., discarding from buffers according to priorities 1-4 and servicing the buffers according to the output ratio of the memory plane); monitoring the output to detect the onset of congestion (e.g., via Pout at output controller 3, see FIG. 3 and col. 4, lines 33-62); upon detection of congestion, using the profile to select an initial discard strategy (e.g., according to Pdspi which inhibits reception of packets of all priorities 1-4, see col. 4, lines 38-54); and initiating the selected initial

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discard strategy (e.g., see col. 6, lines 7-38 regarding discarding according to the discard indicative signals).

Regarding claim 2, Suzuki teaches continuing to monitor the degree of congestion at the output (e.g., via Pout at output controller 3, see FIG. 3 and col. 4, lines 33-62); and selecting and initiating one or more subsequent discard strategies as the degree of congestion changes (e.g., selecting a next discard priority property Pdsp2, see col. 4, lines 54-56, and selecting a memory plane in accordance with buffer stay signals Utr1-Utr4, see col. 5, lines 1-60).

Regarding claim 3, Suzuki teaches terminating the currently initiated discard strategy in response to a determination that congestion no longer exists at the output (e.g., see col. 5, lines 32-36 and col. 4, lines 24-32 regarding selecting memory plane 30-1 when the buffer stay signals Utr1-Utr4 are no longer generated, indicating packets in buffers have not exceeded the thresholds Thr1-Thr4).

Regarding claim 4, Suzuki teaches each successively initiated discard strategy is intended to result in the discard of fewer packets than the previously initiated strategy (e.g., see col. 4, lines 42-62 regarding Pdsp1-Pdsp4 corresponding to a decreasing number 1-4 of discard priorities inhibited).

Allowable Subject Matter

6. Claims 8 is allowed.
7. Claims 9 and 10 are objected to for the reasons discussed above regarding claim 9, but otherwise would be allowed.

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8. Claims 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is an examiner's statement of reasons for allowance and reasons for the indication of allowable subject matter: Claims 5 and 8 recite a novel method and system, respectively, comprising particular buffering including the maintenance of counts in a plurality of counters for packets which would have been stored if a respective one of a plurality of different packet discarding strategies were to have been implemented during the course of receiving the previous packets already stored, wherein only one of these plurality of strategies is actually implemented at a particular time, and selecting a different one of these plurality of packet discarding strategies as a function of the counts that are maintained for the other packet discarding strategies.

Claims 6 and 7 depend upon claim 5 and comprise allowable subject matter for the same reasons as discussed above regarding claim 5.

Claims 9 and 10 depend upon claim 8 and would be allowed for the same reasons as discussed above regarding claim 8 if the minor informality in claim 9 is corrected.

10. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

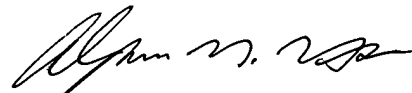
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 5,280,483 to Kamoi et al., U.S. Patent No. 6,240,067 to Sorber, and U.S. Patent No. 6,570,876 to Aimoto each disclose various prioritized packet buffering techniques with congestion control.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on 571.272.3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Justin M Philpott



**ALPUS H. HSU
PRIMARY EXAMINER**